

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
9 June 2005 (09.06.2005)

PCT

(10) International Publication Number  
**WO 2005/052974 A1**

(51) International Patent Classification<sup>7</sup>: **H01J 9/24**, 17/16

(21) International Application Number:  
PCT/US2004/032801

(22) International Filing Date: 6 October 2004 (06.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2003-382775 12 November 2003 (12.11.2003) JP

(71) Applicant (for all designated States except US): **3M INNOVATIVE PROPERTIES COMPANY** [US/US]; 3M Center, Post Office Box 33427, Saint Paul, MN 55133-3427 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **YODA, Akira**

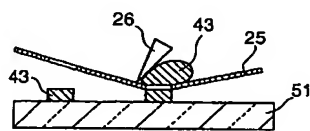
[JP/JP]; Sumitomo 3M Limited, 8-8, Minami, Hashimoto 3-chome, Sagamihara, Kanagawa 229-1185 (JP). **KIKUCHI, Hiroshi** [JP/JP]; Sumitomo 3M Limited, 8-8, Minami, Hashimoto 3-chome, Sagamihara, Kanagawa 229-1185 (JP).

(74) Agents: **FISCHER, Carolyn, A.** et al.; Office of Intellectual Property Counsel, Post Office Box 33427, Saint Paul, MN 55133-3427 (US).

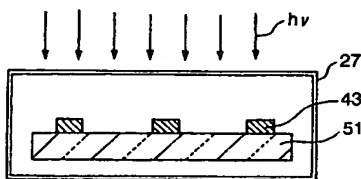
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

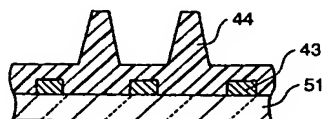
(54) Title: **MANUFACTURING PROCESS OF SUBSTRATE FOR IMAGE DISPLAY PANEL**



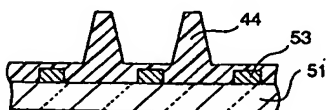
**A**



**B**



**C**



**D**

(57) Abstract: A manufacturing process of a substrate for an image display panel comprising a transparent substrate and protruding ribs and thin film electrodes each formed on the surface of the substrate in the predetermined pattern, in which the process comprises the steps of forming an electrode precursor layer by coating an electrode precursor on the surface of the substrate in the predetermined pattern, forming a rib layer in the predetermined pattern on the surface of the substrate on which the electrode precursor layer has been formed, and sintering the electrode precursor layer and the rib precursor layer simultaneously at the predetermined temperature.



(84) **Designated States** (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

**Published:**

— with international search report